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An ARC comprising: 1. a material substantially composed of M_xSi_yN_z, wherein: M is at least one transition metal; y is greater than x; and is in a range from about 0 to about 5y.

- 2. An ARC as defined in Claim 1, wherein M includes at least two transition metals of the configuration $M1_rM2_{1-r}$, wherein r is in a range from 0 to 1.
 - 3. An ARC as defined in Claim 2, wherein M1 is tungsten and r is 1.
- 4. An ARC as defined in Claim 2, wherein M1 is tungsten, M2 is titanium, and r is about 0.5.
- 5. An ARC as defined in Claim 1, wherein M is tungsten, x is 1, and Si is in a range from about 1.5 to about 5.
- 6. An ARC as defined in Claim 1, wherein said ARC has a thickness range from about 25 Angstroms to about 1,000 Angstroms.
- An ARC as defined in Claim 1, wherein said ARC has a thickness range from 7. about 50 Angstroms to about 400 Angstroms.
- 8. An ARC as defined in Claim 1, wherein said ARC has a thickness range from about 85 Angstroms to about 200 Angstroms.

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1	9. An ARC as defined in Claim 1, wherein y equals about 2x.				
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3	10. An ARC as defined in Claim 1, wherein y equals about 2.55x.				
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5	11. An ARC as defined in Claim 1, wherein y equals about 2.7x.				
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7	12. An ARC as defined in Claim 1, wherein M includes a combination o				
8	M1 _r M2 _{1-r} , wherein r is in the range from 0 to 1, and wherein M1 and M2 are selected from				
9	the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, and Ni and wherein M1 is not M2.				
10					
11	13. An ARC as defined in Claim 1, wherein z is in a range from about 1y to about				
12	2y.				
13					
14	14. An ARC as defined in Claim 1, further composed of hemispherical grained				
15	polysilicon.				
16					
17	15. An ARC as defined in Claim 1, wherein the material substantially composed				
18	of M _x Si _y N _z is a metal silicon nitride ternary compound.				
19					
267	16. A semiconductor structure comprising:				
21 ,	a semiconductor substrate;				
22	an ARC over the semiconductor substrate, said ARC being composed of				
23	metal silicon nitride ternary compound, wherein the metal is at least one meta				
24	selected from the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, Al, and Ni.				

17. The semiconductor structure as defined in Claim 16, wherein the metal silicon nitride ternary compound is selected from the group consisting of titanium tungsten nitride, tungsten aluminum nitride, and titanium aluminum nitride

- 18. The semiconductor structure as defined in Claim 16, wherein said ARC has a thickness range from about 25 Angstroms to about 1,000 Angstroms.
- 19. The semiconductor structure as defined in Claim 16, wherein the metal is selected from the group consisting of Ti_rW_{1-r}, W_rAl_{1-r}, or Ti_rAl_{1-r}.
 - 20. The semiconductor structure as defined in Claim 16, wherein: said ARC has a film thickness and a grain size; and the grain size of the ARC is less than the film thickness or is amorphous.
- 21. The semiconductor structure as defined in Claim 16, wherein the metal silicon nitride ternary compound is $M_xSi_yN_z$, M sa metal, x is greater than zero, y is greater than 2x, and z is in a range from about 1y to about 5y.
- 22. The semiconductor structure as defined in Claim 21, wherein z is in a range from about 1y to about 2y.
- 23. The semiconductor structure as defined in Claim 21, wherein said ARC is further composed of hemispherical grained polysilicon.
- 24. The semiconductor structure as defined in Claim 16, wherein the ARC reflects incident light energy in a reflectivity that is in a range from 0 percent to about 30 percent.

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25\	The semiconductor structure as defined in Claim 16, wherein:
\	the ARC is upon a formation that is selected from the group consisting of an
isolat	tion trench, a contact corridor, a via, a stacked storage node well, and a wiring
trenc	h. \
26.	A semiconductor structure comprising:
	a semiconductor substrate:

an ARC upon said semiconductor substrate, said ARC being composed of a metal silicon nitridè ternary compound $M_x Si_y N_z$, wherein:

x is greater than zero;

y is greater than x;

z is greater than zero and less than about 5y;

M is at least two transition metals composed of M1_rM2_{1-r};

r is in a range from 0 to 1;

M1 and M2 are selected from the group consisting of Sc, Ti, Zr, Nb,

Ta, Mo, W, Co, and Ni; and

M1 is not M2.

- The semiconductor structure as defined in Claim 26, wherein said ARC has 27. a thickness range from about 25 Angstroms to about 1,000 Angstroms.
- The semiconductor structure as defined in Claim 26, wherein said ARC is also 28. composed of hemispherical grained polysilicon.

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29.	A semicond	uctor structure	comprising:
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an electrically insulative layer upon a semiconductor substrate:

a patterned electrically conductive metal line upon electrically insulative layer;

an ARC\upon said electrically conductive metal line, said ARC being composed of a metal silicon nitride ternary compound M_xSi_vN_z, wherein:

x is greater than zero,

M is at least one transition metal selected from the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, Al, and Ni;

y is greater than x; and

z is greater than about 0 and less than about 5y.

- The semiconductor structure as defined in Claim 29, wherein said ARC has 30. a thickness range from about 25 Angstroms to about 1,000 Angstroms.
- The semiconductor structure as defined in Claim 29, wherein said ARC is also 31. composed of hemispherical grained polysilicon.
 - 32. A semiconductor structure comprising:

a semiconductor substrate;

an ARC over the semiconductor substrate, said ARC being composed of a metal silicide binary compound, wherein the metal is at least one metal selected from the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, Al, and Ni.

The semiconductor structure as defined in Claim 32, wherein: the metal silicide binary compound is M1_rM2_{1-r}Si_s;
M1 and M2 are both said at least one metal and are selected from said group;
M1 is not M2;
r is in a range from 0 to 1; and
s is greater than zero.

- 34. The semiconductor structure as defined in Claim 33, wherein M1 and M2 are selected from the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, and Ni.
- 35. The semiconductor structure as defined in Claim 33, wherein M1 and M2 are selected from the group consisting of Sc, Ti, Nb, Ta, W, Co, and Ni.
 - 36. The semiconductor structure as defined in Claim 32, wherein:
 the metal silicide binary compound is M_xSi_y;
 M is tungsten, x is 1, and Si is in a range from about 1.5 to about 5.
- 37. The semiconductor structure as defined in Claim 32, wherein said ARC is further composed of hemispherical grained polysilicon.
 - 38. The semiconductor structure as defined in Claim 32, wherein: said ARC has a film thickness and a grain size; and the grain size of the ARC is less than the film thickness or is amorphous.
- 39. The semiconductor structure as defined in Claim 32, wherein the ARC reflects incident light energy in a reflectivity that is in a range from 0 percent to about 30 percent.

sub As

The semiconductor structure as defined in Claim 32, wherein: 40.

the ARC is upon a formation that is selected from the group consisting of an isolation trench, a contact corridor, a via, a stacked storage node well, and a wiring trench.